CLAIMS

1. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes substantially free of non-human beta casein.

2. Dietary or pharmaceutical products derived from milk or milk itself, to be used in diets for the prevention of insulin-dependent diabetes, substantially free of beta casein from non-human mammals resulting immunogenic in view of molecular mimicry with the GLUT 2 protein.

3. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes, substantially free of beta casein from non-human mammals resulting immunogenic due to molecular mimicry with the protein GLUT2 and to which non-immunogenic beta caseins selected among the animal, vegetable and/or synthetic ones and mixtures thereof have been added.

4. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes, substantially free of caseins comprising the sequence: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) or Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2) or the sequences comprising them: Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-His-Asn (SEQ ID NO:3) or Ser-Leu-Val-Tyr-Pro-Phe-Pro-Gly-Pro-Ile-Pro-Asn (SEQ ID NO:4).

5. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes comprising caseins which do not present the sequence: Pro-Gly-Pro-Ile-His (SEQ ID NO:1) or Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2), said caseins being selected among those in which:

- some or all of the amino acids in the said sequences are modified;
- the said sequences are removed;
- the said sequences are substituted by the homologous sequence in human beta casein and related mixtures.

6. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes comprising caseins presenting the sequence Val-Glu-Pro-Ile-Pro (SEQ ID NO:5) or a longer sequence comprising it: Ser-Leu-Val-Tyr-Pro-Phe-Val-Glu-Pro-Ile-Pro-Tyr (SEQ ID NO:6).

7. Product according to claims 1-6 and integrated with vegetable, animal and/or synthetic beta caseins with peptides derived from the hydrolysis of animal, vegetable and/or synthetic proteins lacking the sequence Pro-Gly-Pro-Ile-His (SEQ ID NO:1) or Pro-Gly-Pro-Ile-Pro (SEQ ID NO:2) and mixtures thereof.

8. Dietary or pharmaceutical products derived from milk, or milk itself, to be used in diets for the prevention of insulin-dependent diabetes comprising caseins in which beta casein is lacking the amino acid sequence Gly-Pro-Ile-His (SEQ ID NO:7) or Gly-Pro-Ile-Pro (SEQ ID NO:8) because it has been produced by animal species genetically not producing proteins with such a sequence.

9. Milk naturally lacking beta casein, produced by genetically modified animals, to be used in diets for the prevention of insulin-dependent diabetes.

10. Milk containing human beta casein obtained from genetically manipulated microorganisms or animals, to be used in diets for the prevention of insulin-dependent diabetes.

11. Process to obtain a dietary product according to claim 5 in which

the amino acid sequences are modified via application of techniques such as genetic engineering and biological cross-selection.

12. Use of beta casein or peptide fragments not demonstrating molecular mimicry with the protein GLUT2 for the preparation of dietary or pharmaceutical products for the prevention of insulin-dependent diabetes.

13. Use of beta casein or peptide fragments according to claim 12 for preparing a food dietary or pharmaceutical product for the prevention of insulin-dependent diabetes.

14. Use of caseins according to any of the claims 5-8 for preparing a food dietary or pharmaceutical product for the prevention of insulin-dependent diabetes.

15. Use of milk according to claims 9-10 for preparing a food dietary or pharmaceutical product for the prevention of insulin-dependent diabetes.